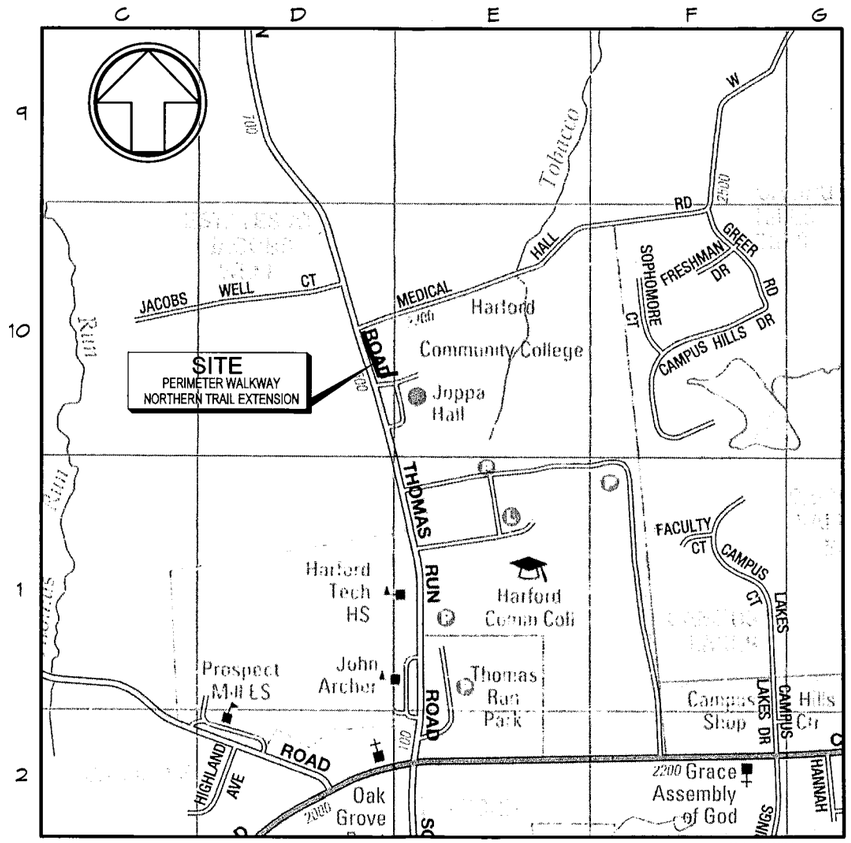
SITE IMPROVEMENT PLAN
FOR
HARFORD COMMUNITY COLLEGE - NORTHERN TRAIL EXTENSION
HARFORD COUNTY, MARYLAND

LIST OF DRAWINGS

1 OF 3 – TITLE SHEET
2 OF 3 – SITE IMPROVEMENT PLAN
3 OF 3 – DETAIL SHEET

GENERAL NOTES:

1. TOPOGRAPHY PROVIDED BY GWS FIELD SURVEY, SEPTEMBER, 2018 AND SUPPLEMENTED BY COUNTY GIS.
2. THE HORIZONTAL DATUM SHOWN HEREON IS REFERRED TO THE MARYLAND COORDINATE SYSTEM (NAD 1983 / 2011)
3. THE LOCATION OF EXISTING UTILITIES SHOWN HEREON IS APPROXIMATE ONLY. THE CONTRACTOR SHALL IDENTIFY ALL UTILITIES TO HIS OWN SATISFACTION PRIOR TO BEGINNING CONSTRUCTION. EXISTING UTILITIES MAY NEED TO BE LOWERED OR RELOCATED AS PART OF THIS PROJECT.
4. ANY DAMAGE TO OFFSITE RIGHTS-OF-WAY, ROADS, OR ADJACENT PROPERTY SHALL BE REPAIRED IMMEDIATELY AT THE EXPENSE OF THE CONTRACTOR.
5. THE CONTRACTOR SHALL MAINTAIN A MINIMUM OF 3.5' FEET OF COVER OVER THE PROPOSED WATER LINE(S) UNLESS OTHERWISE NOTED. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY VERTICAL BENDS TO MAINTAIN MINIMUM CLEARANCE AT CROSSINGS WITH OTHER UTILITIES.
6. ALL DIMENSIONS ARE TO EDGE OF PAVING/CONCRETE OR FACE OF BUILDING. CONTRACTOR SHALL MAINTAIN TRAFFIC ALONG PUBLIC STREETS AND ACCESS TO THE EXISTING FACILITY AT ALL TIMES DURING THE COURSE OF THIS CONSTRUCTION.
7. CONTRACTOR SHALL PLACE A WITNESS POST AT THE TERMINUS OF ALL UTILITY STUBS.
8. CONTRACTOR SHALL PROVIDE ALL PAVEMENT MARKINGS AND SIGNAGE FOR HANDICAP SPACES INDICATED HEREON IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS. PAVEMENT MARKINGS TO BE "TRAFFIC WHITE", 4" WIDE SOLID LINES AND SYMBOLS FOR PARKING AND CROSS WALK; APPLY AT MINIMUM 30 MILS WET FILM THICKNESS AT LEAST 7 DAYS AFTER PAVEMENT PLACEMENT.
9. THE DEVELOPER IS RESPONSIBLE TO HOLD A "PRECONSTRUCTION" MEETING TO INCLUDE THE CONTRACTOR, HARFORD COUNTY INSPECTION PERSONNEL, PUBLIC UTILITIES, AND ANY LOCAL, STATE OR FEDERAL AGENCIES AS REQUIRED PRIOR TO THE START OF CONSTRUCTION.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF TRAFFIC AND TRAFFIC CONTROL DURING CONSTRUCTION CONSISTENT WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES – CURRENT EDITION
11. ALL WORK UNDER THIS CONTRACT SHALL BE PERFORMED BY THE CONTRACTOR IN ACCORDANCE WITH HARFORD SOIL CONSERVATION DISTRICT.
12. THE CONTRACTOR SHALL USE EXTREME CAUTION DURING EXCAVATION AND/OR INSTALLATION OF ALL WORK SHOWN ON THESE PLANS. ALL UTILITIES SHALL BE FULLY PROTECTED FROM DAMAGE OR INTERRUPTION.
13. WHERE TWO FEET (2') CLEARANCE CANNOT BE OBTAINED BETWEEN PIPES AND STRUCTURES, SAND BACKFILL SHALL BE PLACED AS DIRECTED BY THE ENGINEER IN THE FIELD.
14. THE CONTRACTOR SHALL MAINTAIN, REPAIR, AND/OR REPLACE ANY EXISTING SEDIMENT CONTROL DEVICES ENCOUNTERED AND DISTURBED DURING THE COURSE OF CONSTRUCTION UNDER THIS CONTRACT, AND AS SHOWN ON THE APPROVED SEDIMENT CONTROL PLAN AS PART OF THE CONTRACT DOCUMENTS. AT THE END OF EACH DAY, ALL SUCH DISTURBED DEVICES SHALL BE REPAIRED OR REPLACED BEFORE LEAVING THE WORK SITE. THE COST OF PERFORMING THE WORK, INCLUDING MATERIALS, SHALL BE PAID FOR BY A LUMP SUM BID FOR MAINTENANCE AND REPAIR OF SEDIMENT CONTROL DEVICES.
15. ALL CONSTRUCTION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH CURRENT HARFORD COUNTY STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION.
16. NOTIFY MISS UTILITY AT 1-800-257-7777, AND MAKE SURE THEY COMPLETE THE MARKING OF UTILITIES WITHIN THE LIMITS OF CONSTRUCTION AT LEAST 48 HOURS PRIOR TO INSTALLING SEDIMENT CONTROL MEASURES. MAINTAIN ALL MARKINGS THROUGHOUT CONSTRUCTION. THE CONTRACTOR SHALL ALSO INCLUDE IN HIS BID PRICE MARKING OF ON-SITE UTILITIES THAT MIGHT NOT BE MARKED BY MISS UTILITY; THE CONTRACTOR SHALL EITHER MARK THESE ON-SITE UTILITIES HIMSELF OR BY SUBCONTRACTING WITH A PRIVATE ON-SITE UTILITY LOCATION COMPANY.
17. THE CONTRACTOR SHALL MAINTAIN TRAFFIC AT ALL TIMES.



LOCATION MAP
SCALE: 1" = 600'

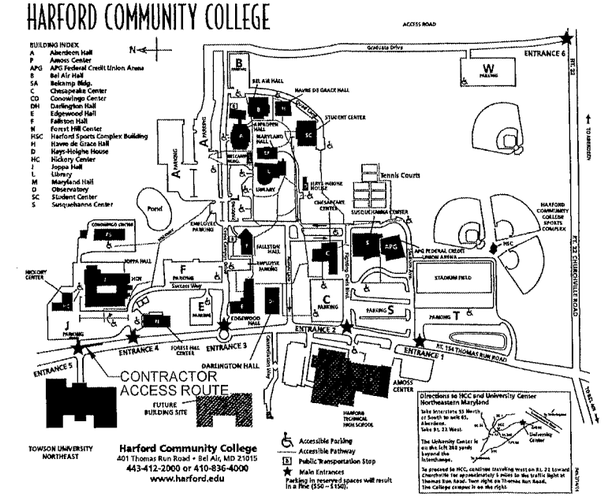
SITE DATA:

1. PROPERTY ADDRESS: 401 THOMAS RUN ROAD
   BEL AIR, MD 21015

   TAX ACCOUNT #: 043177
   TAX MAP: 42
   GRID: 2B
   PARCEL(S): 45
   DEED REFERENCE: 608/371

1. OWNER:
   THE BOARD OF TRUSTEES
   HARFORD COMMUNITY COLLEGE
   401 THOMAS RUN ROAD
   BEL AIR, MD 21014
2. TOTAL ENCLOSED AREA: 202.79 AC.±
3. USE: EXISTING: COMMUNITY COLLEGE
   PROPOSED: COMMUNITY COLLEGE
4. SITE IS SERVICED BY PRIVATE SEWER & PRIVATE WELL WATER.
5. FLOODPLAIN: THE SITE IS LOCATED WITHIN ZONE X AS SHOWN ON FEMA FIRM MAP # 24025C0166 E EFFECTIVE APRIL 19, 2016.
6. TOPOGRAPHY SHOWN IS FIELD RUN PERFORMED BY GWS IN NOVEMBER 2018 & APRIL 2019.
7. ALL PROPOSED CONSTRUCTION IS LOCATED OUTSIDE THE LIMITS OF THE CHESAPEAKE BAY CRITICAL AREA.
8. LIMIT OF DISTURBANCE = 9139 SQ. FT. (0.21 AC.±)
9. WATERSHED: DEER CREEK
   MDE 8 DIGIT WATERSHED ID#: 02120202

HARFORD COMMUNITY COLLEGE



"811"
BEFORE YOU DIG CALL
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NOTE:
NO UNDERGROUND UTILITIES WERE MARKED BY MISS UTILITY PRIOR TO THE SURVEY. CONTRACTOR SHALL CALL MISS UTILITY 48 HOURS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE TO TEST PIT AND VERIFY ANY POTENTIAL CONFLICTS AS A RESULT OF PROPOSED GRADING AND PROPOSED UTILITIES CROSSING ANY EXISTING UTILITIES. ANY DISCREPANCY SHALL BE REPORTED TO G.W. STEPHENS PRIOR TO ANY OTHER WORK BEING STARTED.

GEORGE WILLIAM STEPHENS, JR. and ASSOCIATES, INC.
ENGINEERS ♦ PLANNERS ♦ SURVEYORS ♦ TRANSPORTATION
WATERS EDGE CORPORATE CAMPUS
4992 MILLENNIUM DRIVE, SUITE 100
BELCAMP, MARYLAND 21017-1543
Ph: (410) 297-2340 http://www.gwstephens.com Fax: (410) 297-2345

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 29899, Expiration Date: 01/13/2020

HARFORD COUNTY, MARYLAND
HARFORD COMMUNITY COLLEGE - NORTHERN TRAIL EXTENSION
TITLE SHEET

Drawn By:	J.R.O.	Contract No.:	11943
Designed By:	J.R.O.	Scale: AS SHOWN	Plot Date: 4/15/2019
Reviewed By:	C.W.C.	Sheet 1 of 3	

X:\projects\11943\cad\design\dwgs\sec11943_Site_Plan.dwg April 15, 2019

ADC MAP: 4240
TAX MAP: 42
HCO BILLING ID NO.:
HCO DWG. ID NO.:
SCALE: 1"=50'

DETAIL E-1 SILT FENCE

STANDARD SYMBOL —SF—

1 OF 2

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE | 2011 | MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL E-1 SILT FENCE

STANDARD SYMBOL —SF—

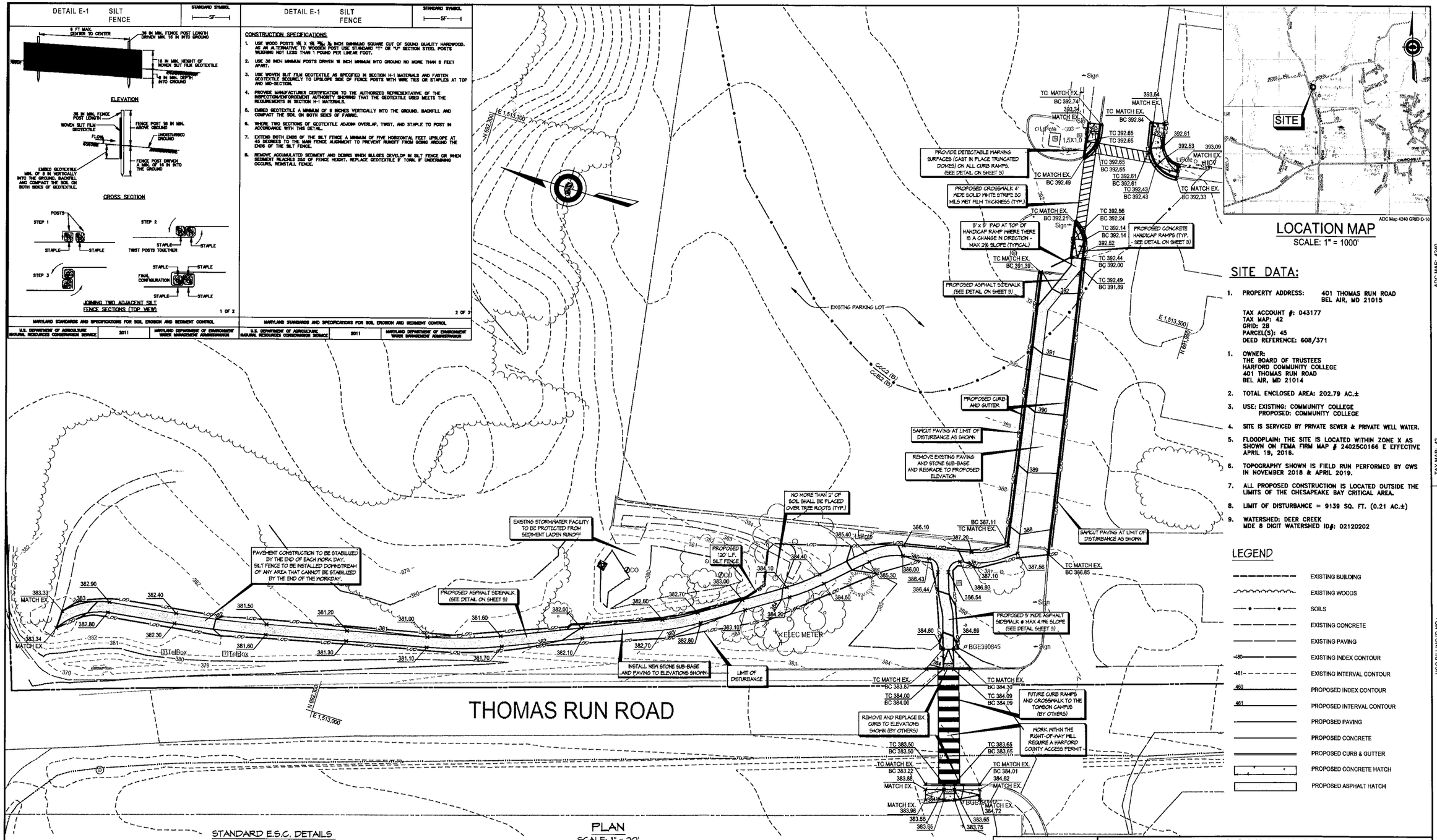
CONSTRUCTION SPECIFICATIONS

1. USE WOOD POSTS 1½ X 1½ 25/64 ½ INCH QUANDUND SQUARE CUT OF SOUND QUALITY HARDWOOD. AS AN ALTERNATIVE TO WOODEN POST USE STANDARD "T" OR "U" SECTION STEEL POSTS WEIGHING NOT LESS THAN 1 POUND PER LINEAR FOOT.
2. USE 36 INCH MINIMUM POSTS DRIVEN 16 INCH MINIMUM INTO GROUND NO MORE THAN 8 FEET APART.
3. USE WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS AND FASTEN GEOTEXTILE SECURELY TO UPSLOPE SIDE OF FENCE POSTS WITH WIRE TIES OR STAPLES AT TOP AND MID-SECTION.
4. PROVIDE MANUFACTURER CERTIFICATION TO THE AUTHORIZED REPRESENTATIVE OF THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT THE GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.
5. EMBED GEOTEXTILE A MINIMUM OF 6 INCHES VERTICALLY INTO THE GROUND. BACKFILL AND COMPACT THE SOIL ON BOTH SIDES OF FABRIC.
6. WHERE TWO SECTIONS OF GEOTEXTILE ADJOIN OVERLAP, TWIST, AND STAPLE TO POST IN ACCORDANCE WITH THIS DETAIL.
7. EXTEND BOTH ENDS OF THE SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS OF THE SILT FENCE.
8. REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN SILT FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. IF UNDERMINING OCCURS, REINSTALL FENCE.

2 OF 2

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE | 2011 | MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION



PLAN

SCALE: 1" = 20'

0' 20' 40' 60'

LOCATION MAP

SCALE: 1" = 1000'

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   BEL AIR, MD 21015

   TAX ACCOUNT #: 043177
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   MDE 8 DIGIT WATERSHED ID#: 02120202

LEGEND

- EXISTING BUILDING
- EXISTING WOODS
- SOILS
- EXISTING CONCRETE
- EXISTING PAVING
- 480 EXISTING INDEX CONTOUR
- 481 EXISTING INTERVAL CONTOUR
- 480 PROPOSED INDEX CONTOUR
- 481 PROPOSED INTERVAL CONTOUR
- PROPOSED PAVING
- PROPOSED CONCRETE
- PROPOSED CURB & GUTTER
- PROPOSED CONCRETE HATCH
- PROPOSED ASPHALT HATCH

STANDARD E.S.C. DETAILS

DETAIL B-4-6-D - PERMANENT SOIL STABILIZATION MATTING SLOPE APPLICATION

DETAIL E-1 - SILT FENCE

SEDIMENT CONTROL NOTES:

PERMANENT SOIL STABILIZATION MATTING TO BE USED ON ALL NON-PAVED AREAS.

Following initial soil disturbance or redisturbance, permanent or temporary stabilization shall be completed within: (a) three (3) calendar days as to the surface of all perimeter controls, dikes, swales, ditches, perimeter slopes, and all slopes greater than three horizontal to one vertical (3:1), and (b) seven (7) calendar days as to all other disturbed or graded areas on the project site not under active grading.

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MISS UTILITY CALL BEFORE YOU DIG

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SOIL TABLE

MAP UNIT SYMBOL	SOIL NAME	HYDROLOGIC SOIL GROUP	SOIL CLASSIFICATION	ERODABILITY FACTOR (Kf)	SLOPES
CcB2	Chester	B	Silt Loam	0.32	3 - 8%
CcC2	Chester	B	Silt Loam	0.32	8 - 15%

"Professional Certification, I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 29299, Expiration Date: 01/13/2020"

HARFORD COUNTY, MARYLAND

HARFORD COMMUNITY COLLEGE - NORTHERN TRAIL EXTENSION
SITE IMPROVEMENT PLAN

Drawn By:	J.R.O.	Contract No.:	11943
Designed By:	J.R.O.	Scale: 1" = 20'	Plot Date: 4/15/2019
Reviewed By:	C.W.C.	Sheet 2 of 3	

ADC MAP: 4240 TAX MAP: 42 HCO BILLING ID NO.: HCO DWG. ID NO.: SCALE: 1"=20'

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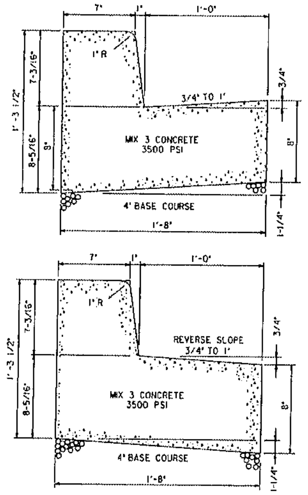
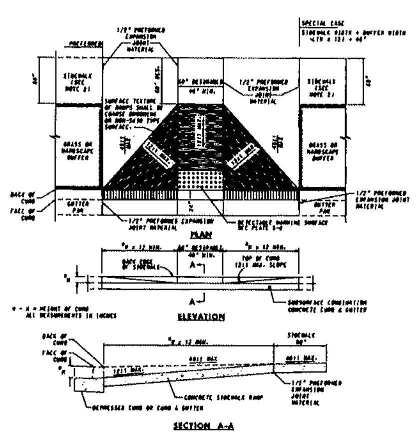


AREA = 0.16± S.Y.   18.75 ± L.F./C.Y.

A BITUMINOUS SEAL SHALL BE PLACED AT ALL CURB JOINTS ALONG THE GUTTER PAN.

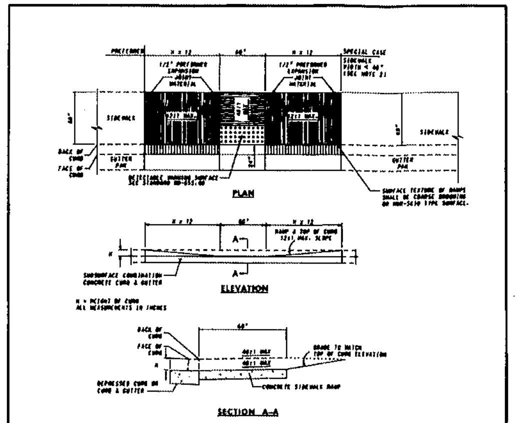
DIRECTOR OF PUBLIC WORKS	DATE 5-2-00	
DEP. DIRECTOR, PUBLIC WORKS	DATE 4/12/00	
HARFORD COUNTY, MD DEPARTMENT OF PUBLIC WORKS	7" COMBINATION CURB AND GUTTER	ISSUED 5/2/00 REVISED 5/31/02 REVISED PLATE S-1



NOTES

1. TO BE USED ON WIDE SIDEWALKS OR SIDEWALKS WITH SIGNIFICANT SEPARATION FROM THE ROADWAY WHERE THE GEOMETRY SPECIFIED IN THE DETAILS ABOVE CAN BE SATISFIED. MAY BE MODIFIED TO SUIT A PARTICULAR LOCATION.
2. WHERE 60" SIDEWALK CAN NOT BE PROVIDED, A DESIGN WAIVER MUST BE REQUESTED.
3. NO TRAVERSABLE SLOPE ON THE RAMP OR SIDEWALK SHALL EXCEED 12:1 IN THE DIRECTION OF PEDESTRIAN TRAVEL, OR 48:1 PERPENDICULAR TO THE DIRECTION OF PEDESTRIAN TRAVEL.
4. SIDEWALK RAMPS TO BE SHOWN ON PLANS SYMBOLICALLY AND REFERENCED WITH THE CENTER OF THE RAMP ALIGNED TO A STATION ON THE CONSTRUCTION CENTERLINE. SEPARATE DETAILS SHALL BE SHOWN WHERE PROPOSED RAMP VARIES FROM STANDARD CASES.

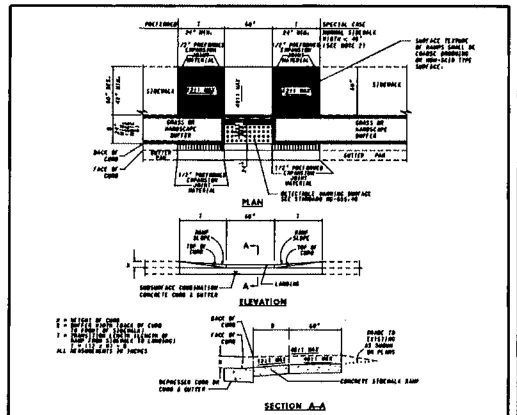
Director of Public Works	Date 10/09/08	DEP DIRECTOR, PUBLIC WORKS	Date 9/29/08
HARFORD COUNTY, MD DEPARTMENT OF PUBLIC WORKS	SIDEWALK RAMP DETAIL PERPENDICULAR	ISSUED REVISED REVISED	PLATE S-7



NOTES

1. TO BE USED WHERE SIDEWALK IS ADJACENT TO THE CURB. THIS STANDARD MAY BE MODIFIED TO SUIT A PARTICULAR LOCATION.
2. WHERE 60" SIDEWALK CAN NOT BE PROVIDED, A DESIGN WAIVER MUST BE REQUESTED.
3. NO TRAVERSABLE SLOPE ON THE RAMP OR SIDEWALK SHALL EXCEED 12:1 IN THE DIRECTION OF PEDESTRIAN TRAVEL, OR 48:1 PERPENDICULAR TO THE DIRECTION OF PEDESTRIAN TRAVEL.
4. SIDEWALK RAMPS TO BE SHOWN ON PLANS SYMBOLICALLY AND REFERENCED WITH THE CENTER OF THE RAMP ALIGNED TO A STATION ON THE CONSTRUCTION CENTERLINE. SEPARATE DETAILS SHALL BE SHOWN WHERE PROPOSED RAMP VARIES FROM STANDARD CASES.

Director of Public Works	Date 10/09/08	DEP DIRECTOR, PUBLIC WORKS	Date 9/29/08
HARFORD COUNTY, MD DEPARTMENT OF PUBLIC WORKS	SIDEWALK RAMPS PARALLEL	ISSUED REVISED REVISED	PLATE S-8



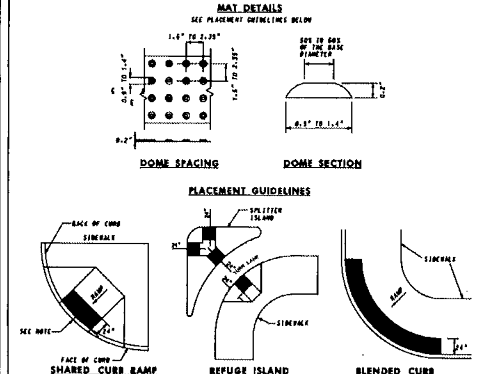
NOTES

1. TO BE USED WHERE AT LEAST 7'-0" EXISTS BETWEEN THE BACK OF CURB AND THE BACK OF SIDEWALK. THIS STANDARD MAY BE MODIFIED TO SUIT A PARTICULAR LOCATION.
2. WHERE 60" SIDEWALK CAN NOT BE PROVIDED, A DESIGN WAIVER MUST BE REQUESTED.
3. NO TRAVERSABLE SLOPE ON THE RAMP OR SIDEWALK SHALL EXCEED 12:1 IN THE DIRECTION OF PEDESTRIAN TRAVEL, OR 48:1 PERPENDICULAR TO THE DIRECTION OF PEDESTRIAN TRAVEL.
4. SIDEWALK RAMPS TO BE SHOWN ON PLANS SYMBOLICALLY AND REFERENCED WITH THE CENTER OF THE RAMP ALIGNED TO A STATION ON THE CONSTRUCTION CENTERLINE. SEPARATE DETAILS SHALL BE SHOWN WHERE PROPOSED RAMP VARIES FROM STANDARD CASES.
5. FOR BUFFER WIDTHS LESS THAN 24", WIDEN SIDEWALK TO BACK OF CURB AS SHOWN FOR THE SPECIAL CASE, THEN BUILD PARALLEL RAMP USING PLATE S-8.

Director of Public Works	Date 10/09/08	DEP DIRECTOR, PUBLIC WORKS	Date 9/29/08
HARFORD COUNTY, MD DEPARTMENT OF PUBLIC WORKS	SIDEWALK RAMPS PARALLEL	ISSUED REVISED REVISED	PLATE S-9

MAT DETAILS

SEE PLACEMENT GUIDELINES BELOW



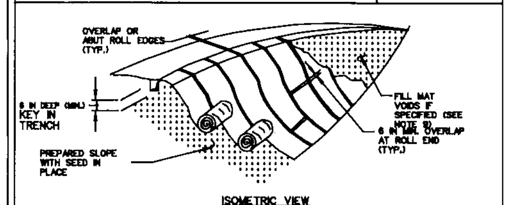
WHERE ISLANDS OR MEDIANS ARE LESS THAN 6 FEET WIDE, THE DETECTABLE WARNING SHOULD EXTEND ACROSS THE FULL LENGTH OF THE CUT THROUGH THE ISLAND OR MEDIAN

NOTES

1. DETECTABLE WARNING SURFACES SHALL CONSIST OF RAISED TRUNCATED DOMES WITH NOMINAL DIMENSIONS AS SHOWN AND SHALL BE CAST IN PLACE INTO THE RAMP. SURFACE APPLIED DETECTABLE WARNING SURFACES SHALL NOT BE PERMITTED ON NEW OR RECONSTRUCTED CURB RAMPS.
2. DETECTABLE WARNING SURFACES SHALL BE A "BRICK" OR "RUST" RED COLOR.
3. THE DETECTABLE WARNING SURFACES SHALL BE LOCATED SO THAT THE EDGE NEAREST THE CURB LINE IS 6 TO 8 INCHES FROM THE FACE OF CURB.
4. FOR SKEWED APPLICATIONS DETECTABLE WARNING SHALL BE PLACED SUCH THAT THE DOMES CLOSEST TO THE BACK OF CURB ARE NO LESS THAN 0.5" AND NO MORE THAN 3.0" FROM THE BACK OF CURB. TRUNCATED DOME SURFACES SHALL BE FABRICATED TO PROVIDE FULL DOMES ONLY.
5. DETECTABLE WARNING SURFACES ARE REQUIRED AT STREET CROSSING & SIGNALIZED INTERSECTIONS.

Director of Public Works	Date 10/09/08	DEP DIRECTOR, PUBLIC WORKS	Date 9/29/08
HARFORD COUNTY, MD DEPARTMENT OF PUBLIC WORKS	DETECTABLE WARNING SURFACE	ISSUED REVISED REVISED	PLATE S-10

DETAIL B-4-6-D	PERMANENT SOIL STABILIZATION MATTING SLOPE APPLICATION	STANDARD SYMBOL PSSMS – * lb/ft² (* INCLUDE SHEAR STRESS)



CONSTRUCTION SPECIFICATIONS

1. USE MATTING THAT HAS A DESIGN VALUE FOR SHEAR STRESS EQUAL TO OR HIGHER THAN THE SHEAR STRESS DESIGNATED ON APPROVED PLANS.
2. USE PERMANENT SOIL STABILIZATION MATTING MADE OF OPEN WEAVE SYNTHETIC, NON-DEGRADABLE FIBERS OR ELEMENTS OF UNIFORM THICKNESS AND DISTRIBUTION THROUGHOUT. CHEMICALS USED IN THE MAT MUST BE NON-LEACHING AND NON-TOXIC TO VEGETATION AND SEED GERMINATION AND NON-INJURIOUS TO THE SKIN. IF PRESENT, NETTING MUST BE EXTRUDED PLASTIC WITH A MAXIMUM MESH OPENING OF 2x2 INCHES AND SUFFICIENTLY BONDED OR SEWN ON 2 INCH CENTERS ALONG LONGITUDINAL AXIS OF THE MATERIAL TO PREVENT SEPARATION OF THE NET FROM THE PARENT MATERIAL.
3. SECURE MATTING USING STEEL STAPLES OR WOOD STAKES. STAPLES MUST BE "U" OR "T" SHAPED STEEL WIRE HAVING A MINIMUM GAUGE OF NO. 11 AND NO. 8 RESPECTIVELY. "U" SHAPED STAPLES MUST AVERAGE 1 TO 1½ INCHES WIDE AND BE A MINIMUM OF 6 INCHES LONG. "T" SHAPED STAPLES MUST HAVE A MINIMUM 8 INCH MAIN LEG, A MINIMUM 1 INCH SECONDARY LEG, AND MINIMUM 4 INCH HEAD. WOOD STAKES MUST BE ROUGH-SAWN HARDWOOD, 12 TO 24 INCHES IN LENGTH, 1x3 INCH IN CROSS SECTION, AND WEDGE SHAPE AT THE BOTTOM.
4. PERFORM FINAL GRADING, TOPSOIL APPLICATION, SEEDBED PREPARATION, AND PERMANENT SEEDING IN ACCORDANCE WITH SPECIFICATIONS. PLACE MATTING WITHIN 48 HOURS OF COMPLETING SEEDING OPERATIONS, UNLESS END OF WORKDAY STABILIZATION IS SPECIFIED ON THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.
5. UNROLL MATTING DOWN SLOPE. LAY MATTING SMOOTHLY AND FIRMLY UPON THE SEEDED SURFACE. AVOID STRETCHING THE MATTING.
6. OVERLAP OR ABUT EDGES OF MATTING ROLLS PER MANUFACTURER RECOMMENDATIONS. OVERLAP ROLL ENDS BY 6 INCHES (MINIMUM), WITH THE UPSTREAM MAT OVERLAPPING ON TOP OF THE DOWNSLOPE MAT.
7. KEY IN THE TOP OF SLOPE END OF MAT 6 INCHES (MINIMUM) BY DIGGING A TRENCH, PLACING THE MATTING ROLL END IN THE TRENCH, STAPLING THE MAT IN PLACE, REPLACING THE EXCAVATED MATERIAL, AND TAMPING TO SECURE THE MAT END IN THE KEY.
8. STAPLE/STAKE MAT IN A STAGGERED PATTERN ON 4 FOOT (MAXIMUM) CENTERS THROUGHOUT AND 2 FOOT (MAXIMUM) CENTERS ALONG SEAMS, JOINTS, AND ROLL ENDS.
9. IF SPECIFIED BY THE DESIGNER OR MANUFACTURER AND DEPENDING ON THE TYPE OF MAT BEING INSTALLED, ONCE THE MATTING IS KEYED AND STAPLED IN PLACE, FILL THE MAT VOIDS WITH TOP SOIL OR GRANULAR MATERIAL AND LIGHTLY COMPACT OR ROLL TO MAXIMIZE SOIL/MAT CONTACT WITHOUT CRUSHING MAT.
10. ESTABLISH AND MAINTAIN VEGETATION SO THAT REQUIREMENTS FOR ADEQUATE VEGETATIVE ESTABLISHMENT ARE CONTINUOUSLY MET IN ACCORDANCE WITH SECTION B-4 VEGETATIVE STABILIZATION.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

SEDIMENT CONTROL NOTES

1. A GRADING UNIT OF 20 ACRES IS THE MAXIMUM CONTIGUOUS AREA ALLOWED TO BE GRADED AT A GIVEN TIME.
2. THE CONTRACTOR/OWNER IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS. FURTHER NO CONSTRUCTION ACTIVITY SHALL TAKE PLACE UNTIL ALL REQUIRED PERMITS HAVE BEEN OBTAINED.
3. THE LIMITS OF DISTURBANCE SHALL BE CLEARLY DELINEATED IN THE FIELD PRIOR TO GRADING OF THE SITE TO ENSURE COMPLIANCE WITH APPROVED PLANS. ALL FOREST RETENTION AREAS WILL BE DELINEATED WITH BLAZE ORANGE FENCE AS WELL AS ANY SWM INFILTRATION PRACTICE PRIOR TO ANY CLEARING. WORK BEYOND THE LIMITS OF DISTURBANCE AND IN ANY AREA INSIDE THE FOREST RETENTION AND SWM INFILTRATION AREA IS CONSIDERED TO BE A VIOLATION OF THIS PLAN.
4. ALL SEDIMENT CONTROL PRACTICES MUST BE INSTALLED PRIOR TO ANY CONSTRUCTION ACTIVITY. UPON COMPLETION OF THE INSTALLATION OF PERIMETER SEDIMENT CONTROL PRACTICES THE SITE MUST BE INSPECTED BY THE DPW. NO ADDITIONAL CONSTRUCTION ACTIVITY WILL BE AUTHORIZED WITHOUT THE APPROVAL FROM THE DPW.
5. ALL POINTS OF INGRESS AND EGRESS SHALL BE PROTECTED TO PREVENT TRACKING OF MUD INTO PUBLIC WAYS. DURING CONSTRUCTION, EVERY MEANS WILL BE TAKEN TO CONTROL SOIL EROSION AND SILTATION. IF NECESSARY A WASH RACK MAY NEED TO BE ESTABLISHED.
6. EARTH DIKES, SEDIMENT TRAPS, ETC. WILL BE LOCATED AS SHOWN ON THESE DRAWINGS. FIELD CHANGES AND MINOR ADJUSTMENTS ARE PERMISSIBLE AS LONG AS THE INSTALLATION FUNCTIONS AND CONFORMS TO SPECIFICATIONS. THE SITE INSPECTOR PRIOR TO INSTALLATION MUST APPROVE ALL SUCH CHANGES. MAJOR CHANGES TO THE APPROVED PLAN WILL REQUIRE RE-APPROVAL BY THE HARFORD SOIL CONSERVATION DISTRICT.
7. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:
   A) THREE CALENDAR DAYS ON SLOPE GREATER THAN 3:1, ALL WATERWAYS AND TO THE SURFACE OF ALL PERIMETER CONTROLS.
   B) SEVEN CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS OF THE PROJECT SITE.
9. DUST CONTROL MUST BE MANAGED AS PART OF ALL SEDIMENT CONTROL PLANS. FAILURE TO DO SO IS A VIOLATION OF THIS PLAN.
10. SEDIMENT BASINS MUST BE BUILT TO DESIGN SPECIFICATIONS SHOWN ON THE PLAN. IF THE BASIN IS TO BE USED AS A FUTURE SWM FACILITY, THE BASIN WILL BE BUILT IN ACCORDANCE WITH THE LATEST MD-378 STANDARDS AND SPECIFICATIONS. SPECIFIED MATERIALS MUST BE USED. NO CHANGES OR MODIFICATIONS WILL BE MADE WITHOUT WRITTEN AUTHORIZATION OF THE HARFORD SOIL CONSERVATION DISTRICT.
11. TEMPORARY FENCING SHALL BE PLACED AROUND ALL SEDIMENT BASINS, TRAPS, AND PONDS DURING CONSTRUCTION AND SITE GRADING.
12. AT THE END OF EACH WORKING DAY ALL SEDIMENT CONTROL PRACTICES WILL BE INSPECTED AND LEFT OPERATIONAL. A WEEKLY LOG WILL BE KEPT IN ACCORDANCE WITH NOI/NPDES REGULATIONS. A COPY OF THE APPROVED SEDIMENT CONTROL PLANS SHALL BE AVAILABLE AT THE SITE AT ALL TIMES.
13. ENSURE POSITIVE DRAINAGE TO ALL ROAD INLETS DURING ALL PHASES OF ROAD CONSTRUCTION TO ENSURE POSITIVE FLOW TRAPS AND OR BASINS.
14. CUT AND/OR FILL SHALL BE DONE IN CONFORMANCE WITH 2011 EROSION AND SEDIMENT CONTROL STANDARDS AND SPECIFICATIONS FOR LAND GRADING.
15. SURFACE FLOWS OVER CUT AND FILL SLOPES SHALL BE CONTROLLED BY EITHER REDIRECTING FLOWS FROM TRAVERSING THE SLOPES OR BY INSTALLING MECHANICAL-DEVICES TO SAFELY CONVEY WATER DOWN SLOPES WITHOUT CAUSING EROSION.
16. OFF-SITE WASTE OR BORROW AREAS SHALL HAVE AN APPROVED EROSION AND SEDIMENT CONTROL PLAN PRIOR TO THE IMPORT OR EXPORT OF MATERIAL TO/FROM THE PROJECT SITE.
17. ALL MATERIAL ORIGINATING FROM THE DEVELOPMENT OF THE PROPERTY AND DEPOSITED ON THE PUBLIC RIGHT-OF-WAY SHALL BE IMMEDIATELY REMOVED.
18. STORM DRAIN INLETS AND OUTLETS SHALL BE PROTECTED PER 2011 EROSION AND SEDIMENT CONTROL STANDARDS AND SPECIFICATIONS.
19. TOPSOIL, LIMING, FERTILIZING, SEEDING, MULCHING, SOD, ETC. ARE ALL ESSENTIAL PARTS OF THE SEDIMENT CONTROL AND MUST BE COMPLETED ALONG WITH ALL OTHER PRACTICES.
20. TRAPS TO BE REMOVED SHALL BE DEWATERED AS PER THE 2011 EROSION AND SEDIMENT CONTROL STANDARDS AND SPECIFICATIONS.
21. PRIOR TO REMOVAL OF TRAPS OR CONVERSION OF SEDIMENT BASINS TO SWM FACILITIES, THE STORM DRAINS WILL BE FLUSHED.
22. SEDIMENT CONTROL PRACTICES WILL BE MAINTAINED UNTIL ALL DISTURBED AREAS FOR WHICH THE PRACTICES WERE INSTALLED HAVE BEEN STABILIZED. SEDIMENT CONTROL PRACTICES MAY BE REMOVED ONLY WITH THE AUTHORIZATION OF THE DPW INSPECTOR. ALL DISTURBED AREAS RESULTING FROM THE REMOVAL OF SEDIMENT CONTROL DEVICES SHALL BE STABILIZED IMMEDIATELY. REMOVAL PRIOR TO INSPECTOR'S APPROVAL CONSTITUTES A VIOLATION.

Permanent Stabilization

Condition Where Practice Applies: Exposed soils where ground cover is needed for 6 months or more.

Criteria:

A. Seed Mixtures

1. General Use

a. Select one or more of the species or mixtures listed in Table B.3 for the appropriate Plant Hardiness Zone (from Figure B.3) and based on the site conditions or purpose found on Table B.2, enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The Summary is to be placed on the plan.

b. Additional planting specifications for exceptional sites such as shorelines, stream banks, or dunes or for special purposes such as wildlife or aesthetic treatment may be found in USDA-NRCS Technical Field Office Guide, Section 342 – Critical Area Planting.

c. For sites having disturbed area over 5 acres, use and show the rates recommended by the soil testing agency.

d. For areas receiving low maintenance, apply urea form fertilizer (46-0-0) at 3 ½ lbs per 1000 square feet (150 pounds per acre) at the time of seeding in addition to the soil amendments shown in the Permanent Seeding Summary.

2. Turfgrass Mixtures

a. Areas where turfgrass may be desired include lawns, parks, playgrounds, and commercial sites which will receive a medium to high level of maintenance.

b. Select one or more of the species or mixtures listed below based on the site conditions or purpose. Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The summary is to be placed on the plan.

i. Kentucky Bluegrass: Full Sun Mixture: For use in areas that receive intensive management. Irrigation required in the areas of central Maryland and Eastern Shore. Recommended Certified Kentucky Bluegrass Cultivars Seeding Rate: 1.5 to 2.0 pounds per 1,000 square feet. Choose a minimum of three Kentucky bluegrass cultivars with each ranging from 10–35% of the total mixture by weight.

ii. Kentucky Bluegrass/Perennial Rye: Full Sun Mixture: For use in full sun areas where rapid establishment is necessary and when turf will receive medium to intensive management. Certified Perennial Ryegrass Cultivars/Certified Kentucky Bluegrass Seeding Rate: 2 pounds mixture per 1,000 square feet. Choose a minimum of three Kentucky bluegrass cultivars with each ranging from 10–35% of the total mixture by weight.

iii. Tall Fescue/Kentucky Bluegrass: Full Sun Mixture: For use in drought prone areas and/or for areas receiving low to medium management in full sun to medium shade. Recommended mixture includes; Certified Tall Fescue Cultivars 95–100%, Certified Kentucky Bluegrass Cultivars 0–5%. Seeding Rate: 5 to 8 pounds per 1,000 square feet. One or more cultivars may be blended.

iv. Kentucky Bluegrass/Fine Fescue: Shade Mixture: For use in areas with shade in Bluegrass lawns. For establishment in high quality, intensively managed turf area. Mixture includes; Certified Kentucky Bluegrass Cultivars 30–40% and certified Fine Fescue 60–70%. Seeding Rate: 1 ½ to 3 pounds per 1,000 square feet.

Notes:
Select turfgrass varieties from those listed in the most current University of Maryland Publication, Agronomy Memo #77, "Turfgrass Cultivar Recommendations for Maryland"

Choose certified material. Certified material is the best guarantee of Cultivar purity. The certification program of the Maryland Department of Agriculture, Turf and Seed Section, provides a reliable means of consumer protection and assures a pure genetic line.

c. Ideal Times of Seeding for Turf Grass Mixtures

Western MD: March 15 to June 1, August 1 to October 1 (Hardiness Zones: 5b, 6a)

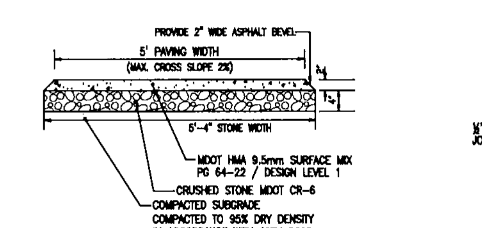
Central MD: March 1 to May 15, August 15 to October 15 (Hardiness Zone: 6b)

Southern MD, Eastern Shore: March 1 to May 15, August 15 to October 15 (Hardiness Zones: 7a, 7b)

d. Till areas to receive seed by disking or other approved methods to a depth of 2 to 4 inches, level and rake the areas to prepare a proper seedbed. Remove stones and debris over 1 ½ inches in diameter. The resulting seedbed must be in such condition that future mowing of grasses will pose no difficulty.

e. If soil moisture is deficient, supply new seedings with adequate water for plant growth (½ to 1 inch every 3 to 4 days depending on soil texture) until they are firmly established. This is especially true when seedings are made late in the planting season, in abnormally dry or hot seasons, or on adverse sites.

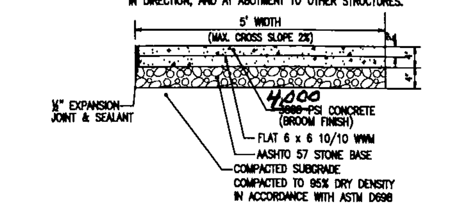
Hardiness Zone (from Figure B.3): 7a Seed Mixture (from Table B.3):					Fertilizer Rates (10-20-20)			Lime Rates
No.	Species	Application Rate (lb/ac.)	Sedding Dates	Seeding Depths	N	P205	K20	
3	Deertongue Sheep Fescue Redtop Common Lespedeza	20 20 1 10	3-1 to 5-15 8-15 to 10-15	1/4 - 1/2 In	45 lb/ac (1.0 lb/1000 sf)	90 lb/ac (2 lb/ 1000 sf)	90 lb/ac (2 lb/ 1000 sf)	2 tons/ac (90 lb/ 1000 sf)
7	Creeping Red Fescue Kentucky Bluegrass	60 15	3-1 to 5-15 5-16 to 8-14 8-15 to 10-15	1/4 - 1/2 In				
10	Orchardgrass Creeping Red Fescue Redtop Alsike Clover White Clover	25 10 1 3 3	3-1 to 5-15 8-15 to 10-15	1/4 - 1/2 In				



ASPHALT SIDEWALK

(NOT TO SCALE)

PROVIDE LATERAL EXPANSION JOINTS (1/2" PREMOULDED ASPHALT IMPREGNATED MAT'L) AT REGULAR SPACINGS OF 20 FEET AND LATERAL CONTRACTION JOINTS AT 5 FOOT SPACINGS BETWEEN THE EXPANSION JOINTS. ALSO PROVIDE EXPANSION JOINTS AT SIDEWALK INTERSECTIONS, CHANGES IN DIRECTION, AND AT ABUTMENT TO OTHER STRUCTURES.



CONCRETE WALK / RAMP DETAIL

(NOT TO SCALE)

"811"
BEFORE YOU DIG CALL
1-800-257-7777

MISS UTILITY CALL BEFORE YOU DIG

NOTE:
NO UNDERGROUND UTILITIES WERE MARKED BY MISS UTILITY PRIOR TO THE SURVEY. CONTRACTOR SHALL CALL MISS UTILITY 48 HOURS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE TO TEST PIT AND VERIFY ANY POTENTIAL CONFLICTS AS A RESULT OF PROPOSED GRADING AND PROPOSED UTILITIES CROSSING ANY EXISTING UTILITIES. ANY DISCREPANCY SHALL BE REPORTED TO G.W. STEPHENS PRIOR TO ANY OTHER WORK BEING STARTED.

GWS
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"Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 29899, Expiration Date: 01/13/2020"

HARFORD COUNTY, MARYLAND

HARFORD COMMUNITY COLLEGE - NORTHERN TRAIL EXTENSION

DETAILS

Drawn By:	J.R.O.	Contract No.:	11943
Designed By:	J.R.O.	Scale: AS SHOWN	Plot Date: 4/15/2019
Reviewed By:	C.W.C.	Sheet 3	of 3

ADC MAP: 4240
TAX MAP: 42
HCO BILLING ID NO.:
HCO DWG. ID NO.:
SCALE: 1 inch